

Application No. 10/711,401
Response to Restriction Requirement mailed January 9, 2007
Attorney Docket No. B-03-1241

AMENDMENTS TO CLAIMS

Claim 1. (original) A reaction-injection-molded galley cart for an aircraft, comprising:

a body configured to move along a passenger aisle of the aircraft, said body having a one-piece plastic shell that forms a first side portion, a second side portion, a top side portion, and a bottom side portion of said body;

wherein said first side portion is spaced apart from said second side portion;

wherein said top side portion extends between said first side portion and said second side portion;

wherein said bottom side portion extends between said first side portion and said second side portion;

wherein said one-piece plastic shell includes at least one layer of a reaction-injection-molded material.

Claim 2. (original) The reaction-injection-molded galley cart recited in claim 1 wherein said at least one layer of reaction-injection-molded material has a plurality of fasteners embedded therein.

Claim 3. (original) The reaction-injection-molded galley cart recited in claim 1 wherein said plurality of fasteners is selected from the group consisting of a plurality of castors, a plurality of hinges, and a plurality of detent flanges.

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Claim 4. (original) The reaction-injection-molded galley cart recited in claim 1 wherein said plurality of fasteners mounts at least one decorative panel to said body.

Claim 5. (original) The reaction-injection-molded galley cart recited in claim 1 wherein said at least one layer of reaction-injection-molded material includes a base layer and a foam layer coupled to said base layer.

Claim 6. (original) The reaction-injection-molded galley cart recited in claim 1 wherein said top side portion of said one-piece plastic shell has a tray member coupled thereto.

Claim 7. (original) The reaction-injection-molded galley cart recited in claim 1 wherein said one-piece plastic shell defines an interior cavity and a pair of opposing open ends in communication with said interior cavity, said pair of opposing open ends having a pair of panels coupled thereto.

Claim 8. (original) The reaction-injection-molded galley cart recited in claim 7 wherein at least one said pair of panels is a door for selectively providing access to said interior cavity.

Claim 9. (original) The reaction-injection-molded galley cart recited in claim 1 wherein said one-piece shell construction has a plurality of grooves formed therein for receiving and supporting at least one tray within said interior cavity.

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Claim 10. (original) The reaction-injection-molded galley cart recited in claim 9 wherein said plurality of grooves are formed in said first side portion and said second side portion.

Claim 11 . (original) A reaction-injection-molded galley cart for an aircraft, comprising:

a body configured to move along a passenger aisle of the aircraft, said body having a one-piece plastic shell that forms a first side portion, a second side portion, a top side portion, and a bottom side portion of said body;

wherein said first side portion is spaced apart from said second side portion; wherein said top side portion extends between said first side portion and said second side portion;

wherein said bottom side portion extends between said first side portion and said second side portion;

wherein said one-piece plastic shell includes at least one layer of a reaction-injection-molded material with a plurality of reinforcement members embedded therein.

Claim 12. (original) The reaction-injection-molded galley cart recited in claim 11 wherein said plurality of reinforcement members includes at least one of a plurality of carbon fibers and a plurality of glass fibers.

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Claim 13. (original) The reaction-injection-molded galley cart recited in claim 11 wherein said at least one layer of reaction-injection-molded material has a plurality of fasteners embedded therein.

Claim 14. (original) The reaction-injection-molded galley cart recited in claim 11 wherein said plurality of fasteners is selected from the group consisting of a plurality of castors, a plurality of hinges, and a plurality of detent flanges.

Claim 15. (original) The reaction-injection-molded galley cart recited in claim 11 wherein said plurality of fasteners mounts at least one decorative panel to said body.

Claim 16. (original) The reaction-injection-molded galley cart recited in claim 11 wherein said at least one layer of reaction-injection-molded material includes a base layer and a foam layer coupled to said base layer.

Claim 17. (original) The reaction-injection-molded galley cart recited in claim 11 wherein said top side portion of said one-piece plastic shell has a tray member coupled thereto.

Claim 18. (original) The reaction-injection-molded galley cart recited in claim 11 wherein said one-piece plastic shell defines an interior cavity and a pair of opposing open ends in communication with said interior cavity, said pair of opposing open ends having a pair of panels coupled thereto.

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Claim 19. (original) The reaction-injection-molded galley cart recited in claim 18 wherein at least one said pair of panels is a door for selectively providing access to said interior cavity.

Claim 20. (original) The reaction-injection-molded galley cart recited in claim 11 wherein said one-piece shell construction has a plurality of grooves formed therein for receiving and supporting a tray within said interior cavity.

Claim 21. (original) The reaction-injection-molded galley cart recited in claim 20 wherein said plurality of grooves are formed in said first side portion and said second side portion.

Claim 22. (original) The reaction-injection-molded galley cart recited in claim 11 wherein said base layer is generally impermeable to fluids.

Claim 23. (withdrawn) A system for manufacturing a reaction-injection-molded galley cart for an aircraft, comprising:

- a first mold;
- a resin applicator device for applying at least one layer of reaction injection-molded material to said first mold;
- a second mold for clamping to said first mold and forming a one-piece plastic shell;

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at least one motor coupled to at least one of said first mold, said resin applicator device, and said second mold;

a controller coupled to said at least one motor for controlling movement of at least one of said first mold, said resin applicator device, and said second mold;

wherein said one-piece plastic shell has a first side portion, a second side portion spaced apart from said first side portion, a top side portion extending between said first side portion and said second side portion, and a bottom side portion extending between said first side portion and said second side portion.

Claim 24. (withdrawn) A reaction-injection-molded galley cart for an aircraft manufactured by the process comprising:

rotating a first mold;

applying a base layer to said first mold;

applying a foam layer to said base layer;

embedding at least one reinforcement member in at least one of said base layer and said foam layer;

halting a spin of said first mold;

clamping a second mold to said first mold;

applying pressure to said base layer and said foam layer; and heating said base layer and said foam layer; and

wherein said base layer and said foam layer form a one-piece plastic shell with a first side portion, a second side portion spaced apart from said first side portion, a top side portion extending between said first side portion and said second side portion, and a

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bottom side portion extending between said first side portion and said second side portion;

wherein at least said foam layer comprises reaction-injection-molded material.

Claim 25. (withdrawn) A method for manufacturing a reaction-injection-molded galley cart for an aircraft, comprising:

rotating a first mold;

applying a base layer to said first mold;

applying a foam layer to said base layer;

halting a spin of said first mold;

clamping a second mold to said first mold;

applying pressure to said base layer and said foam layer; and heating said base layer and said foam layer;

wherein said base layer and said foam layer form a one-piece plastic shell with a first side portion, a second side portion spaced apart from said first side portion, a top side portion extending between said first side portion and said second side portion, and a bottom side portion extending between said first side portion and said second side portion;

wherein said foam layer comprises reaction-injection-molded material.

Claim 26. (withdrawn) The method recited in claim 25 further comprising:
applying an outer layer to said foam layer.

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Claim 27. (withdrawn) The method recited in claim 25 further comprising:
securing at least one fastener to at least one of said first mold and said second
mold; and
embedding said at least one fastener in at least one of said base layer and said
foam layer.

Claim 28. (withdrawn) The method recited in claim 25 further comprising:
coupling a tray member to said top side portion of said one-piece plastic shell.

Claim 29. (withdrawn) The method recited in claim 25 further comprising:
coupling a pair of panels to a pair of opposing ends of said one-piece plastic shell.

Claim 30. (withdrawn) The method recited in claim 29 wherein at least one of
said pair of panels is a door for selectively providing access to an interior cavity that is
defined by said one-piece plastic shell.

Claim 31. (withdrawn) The method recited in claim 25 further comprising:
coupling a plurality of wheels to said bottom side portion of said one-piece plastic shell.

Claim 32. (withdrawn) A method for manufacturing a reaction-injection-molded
galley cart for an aircraft, comprising:
rotating a first mold;
applying a base layer to said first mold;

applying a foam layer to said base layer;
embedding a plurality of reinforcement members within at least one of said base layer and said foam layer;
halting a spin of said first mold;
clamping a second mold to said first mold;
applying pressure to said base layer and said foam layer; and
heating said base layer and said foam layer; and
actuating a computer-controlled mechanism for moving at least one of said first mold, said second mold, and a resin applicator device;
wherein said base layer and said foam layer form a one-piece plastic shell with a first side portion, a second side portion spaced apart from said first side portion, a top side portion extending between said first side portion and said second side portion, and a bottom side portion extending between said first side portion and said second side portion;
wherein said foam layer comprises reaction-injection-molded material.

Claim 33. (withdrawn) The method recited in claim 32 further comprising:
applying an outer layer to said foam layer.

Claim 34. (withdrawn) The method recited in claim 32 further comprising:
securing at least one fastener to said first mold; and
embedding said at least one fastener in at least one of said base layer and said foam layer.

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Claim 35. (withdrawn) The method recited in claim 32 further comprising:
coupling a tray member to said top side portion of said one-piece plastic shell.

Claim 36. (withdrawn) The method recited in claim 32 further comprising:
coupling a pair of panels to a pair of opposing ends of said one-piece plastic shell.

Claim 37. (withdrawn) The method recited in claim 36 wherein at least one of
said pair of panels is a door for selectively providing access to an interior cavity that is
defined by said one-piece plastic shell.

Claim 38. (withdrawn) The method recited in claim 32 further comprising:
coupling a plurality of wheels to said bottom side portion of said one-piece plastic shell.